CLAIMS:

1. A record carrier carrying a stereo signal and a data signal, said stereo signal being recorded in a first channel, characterized in that the data signal comprises a first portion and a remaining portion, said first portion being combined with said stereo signal to obtain a composite signal being recorded in said first channel on said record carrier and the remaining portion being recorded in a second channel on said record carrier.

2. The record carrier as claimed in claim 1, characterized in that said first portion being combined with said stereo signal by using buried data techniques.

3. The record carrier as claimed in claim 1 or 2, characterized in that the data signal comprises a data compressed multichannel extension signal being a representation of a multichannel extension signal.

4. The record carrier as claimed in claim 3, characterized in that the multichannel extension signal comprises a center channel signal.

5. The record carrier as claimed in claim 3 or 4, characterized in that the multichannel extension signal comprises a surround left signal and a surround right signal.

6. The record carrier as claimed in claim 3, 4 or 5, characterized in that the data compressed multichannel extension signal is a perceptually encoded representation of the multichannel extension signal.

7. The record carrier as claimed in claim 3, 4, 5 or 6 characterized in that the first portion represents a partial representation of the multichannel extension signal.

8. The record carrier as claimed in any of the preceding claims characterized in that said first channel is represented by first variations of a first physical parameter of the record carrier and said second channel is represented by second variations of a second physical

parameter of the record carrier, said second physical parameter differing from said first physical parameter.

9. The record carrier as claimed in any of claim 1 to 7, characterized in that said composite signal in said first channel and said remaining portion in said second channel being obtained by n to m channel modulation of the composite signal into a sequence of m-bit channel words, insertion of p merging bits between said m-bit channel words, said merging bits being modified in response to said remaining portion.

10. The record carrier as claimed in any of claim 1 to 7, characterized in that said composite signal in said first channel and said remaining portion in said second channel being obtained by processing the composite signal into a sequence of q byte blocks, insertion of a r byte subcode between said q byte blocks, at least one bit of said r byte subcode being obtained in response to said remaining portion.

11. The record carrier as claimed in claim 10, characterized in that said composite signal in said first channel and said remaining portion in said second channel being obtained by further channel encoding of the sequence of q byte blocks and r byte subcodes

12. Method for recording a stereo signal and a data signal on a record carrier comprising the steps:
- writing said stereo signal in a first channel on the record carrier
characterized in that the method further comprises the steps:
- splitting the data extension signal into a first portion and a remaining portion,
- writing said remaining portion of said data signal in a second channel on the record carrier,
- combining said first portion to said stereo signal prior to writing said stereo signal in said first channel to obtain a composite signal
- writing the composite signal in the first channel.

13. Method as claimed in claim 12, characterized in that the combining step is performed by using buried data techniques.

14. Method as claimed in claim 12 or 13, characterized in that the method further comprises the step data compressing a multichannel extension signal into the data signal.

15. Method as claimed in anyone of claim 12 to 14, characterized in that the first channel is written on the record carrier by first variations of a first physical parameter of the record carrier and that the second channel is written on the record carrier by second variations of a second physical parameter of the record carrier, said second physical parameter differing from said first physical parameter.

16. Method as claimed in any of claim 12 to 14, characterized in that the method further comprises the steps n to m channel modulation of the composite signal to obtain a sequence of m-bit channel words, generating p merging bits in response to said remaining portion, inserting said p merging bits between said m-bit channel words and writing the thus obtained signal on the record carrier.

17. Method as claimed in any of claim 12 to 14, characterized in that the method further comprises the steps processing the composite signal into a sequence of q byte blocks, generating at least one bit in response to said remaining portion for insertion in a r byte subcode, inserting said r byte subcode between said q byte blocks and writing the thus obtained signal on the record carrier.

18. Recording apparatus for carrying out the method as claimed in anyone of the claims 12 to 17.

19. Reproducing apparatus for reproducing a stereo signal and a data signal from a record carrier, comprising

- first reading means for reading a first reproduction signal from a first channel on the record carrier,

characterized in that the apparatus further comprises

- means for extracting a first portion of the data signal from the first reproduction signal,
- second reading means for reading a remaining portion of the data signal from a second channel on the record carrier,
- combining means for combining the first portion and the remaining portion to obtain the data signal
- means for converting the first reproduction signal into said stereo signal.

20. Reproducing apparatus as claimed in claim 19 characterized in that the extraction means are adapted for extracting the first portion of the data signal from the first reproducing signal by using buried data techniques.

21. Reproducing apparatus as claimed in claim 19 or 20, characterized in that the data signal comprises a data compressed multichannel extension signal, whereby the apparatus further comprises

- decompressing means for decompressing the data compressed multichannel extension signal into a multichannel extension signal.

22. Reproducing apparatus as claimed in claim 21, characterized in that the multichannel extension signal comprises a center channel signal.

23. Reproducing apparatus as claimed in claim 21 or 22, characterized in that the multichannel extension signal comprises a surround left signal and a surround right signal.

24. Reproducing apparatus as claimed in any of claim 19 to 23, characterized in that the first reading means are arranged for reading the stereo signal from the first channel by detecting first variations of a first physical parameter of the record carrier and that the second reading means are arranged for reading the remaining part of the data signal from the second channel by detecting second variations of a second physical parameter of the record carrier, said second physical parameter differing from said first physical parameter.

25. Reproducing apparatus as claimed in any of claim 19 to 23, characterized in that said first reading means comprises means for splitting said first reproduction signal into a sequence of m-bit channel words and p merging bits, the converting means comprises means for m – n channel demodulation of said m-bit channel words to obtain the composite signal, and said second reading means comprises means for processing said p merging bits to obtain said remaining portion.

26. Reproducing apparatus as claimed in any of claim 19 to 23, characterized in that said first reading means comprises means for splitting said reproduction signal into a sequence of q byte blocks and r byte subcodes, processing means for processing said q-byte

blocks to obtain the composite signal, and said second reading means comprises means for processing at least one bit from said r byte subcodes to obtain said remaining portion.

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